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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,710	07/03/2001	Albert Chin	1001.1468101	2449

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CROMPTON, SEAGER & TUFTE, LLC  
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MINNEAPOLIS, MN 55403-2420

EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 09/23/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-15

<b>Office Action Summary</b>	<b>Application No.</b> 09/898,710	<b>Applicant(s)</b> CHIN ET AL.	
	<b>Examiner</b> Mark Eashoo, Ph.D.	<b>Art Unit</b> 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 16-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 10-13 is/are rejected.
- 7) ☒ Claim(s) 9,14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Continued Prosecution Application*

The request filed on 9-09-2003 for a Continued Prosecution is acceptable. An action on the RCE follows.

### *Election/Restrictions*

The restriction requirement set forth during prior prosecution is maintained. Claims 16-27 have been withdrawn from consideration.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ninomiya et al. (US Pat.3,891,374).

Regarding claim 1: Ninomiya et al. teaches the claim process of polymer extrusion, comprising: providing an extrusion head (Fig. 1); extruding an elongate polymer (Fig. 1); solidifying the elongate polymer member (1:62-65); and rotating the elongate polymer downstream of the extrusion head to impart helical/oblique orientation while the polymer is between the melt temperature and the glass transition temperature (3:21-56).

Ninomiya et al. teaches a thermoplastic resin. It is inherent that thermoplastic resins have a melt temperature and a glass transition temperature. It is also inherent that the 'stretching temperature' is between the melt temperature and a glass transition temperature because this is the temperature region which polymers have sufficient molecular ability to be oriented.

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Regarding claim 2: Ninomiya et al. teaches that rotation of the polymer member downstream of the extrusion head is performed in close proximity to the extrusion head (Fig. 1).

Regarding claims 11-13: Ninomiya et al. teaches extrusion over a rotating core member (Fig. 1). The extruded member passes over the rotating core member, therefore the core member is inherently removed because the extrudate is pinched together to form a flattened structure (Fig. 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Ninomiya et al. (US Pat.3,891,374).

Regarding claims 5-7: Ninomiya et al. teaches the basic claim process of polymer extrusion as set forth above. Ninomiya et al. does not teach a specific extrusion speed or rotation rate, including variable speeds. Nonetheless, extrusion speed and rotation rates are well known in the extrusion art and are also known to be optimized. At the time of invention a person having ordinary skill in the art would have found it obvious to have optimized both extrusion speed and rotation rate, as commonly practiced in the art, in the

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process of Ninomiya et al., and would have been motivated to do so in order to induce the desired level of orientation to the tubular extrudate.

Regarding claims 8 and 10: Ninomiya et al. teaches the basic claim process of polymer extrusion as set forth above. Ninomiya et al. does not teach continuous co-extrusion. Nonetheless, continuous co-extrusion of multi-layer blown films is well known in the extrusion art. At the time of invention a person having ordinary skill in the art would have found it obvious to have continuously co-extruded a multi-layer blown films, as commonly practiced in the art, in the process of Ninomiya et al., and would have been motivated to do so in order to form a packaging film which have various barrier properties (eg Saran wrap).

#### ***Allowable Subject Matter***

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach the extrusion process as a whole comprising intermittent co-extrusion and imparting helical orientation.

Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach the extrusion process as a whole comprising extruding a second layer over a first extruded core member and imparting helical orientation as claimed.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 2 and 5-15 have been considered but are moot in view of the new ground(s) of rejection.

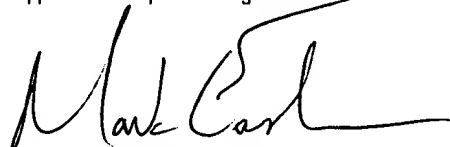
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*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (703) 308-3606. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaanni can be reached on (703) 305-5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Mark Eashoo, Ph.D.  
Primary Examiner  
Art Unit 1732

9/20/03

me  
9/20/03